The IMF is sponsoring SURFACE WORLD this year at the NEC and we’re looking forward to seeing you at our Visitors’ Lounge.

SURFACE WORLD LIVE
2nd & 3rd March 2022, NEC, Birmingham - we have everything covered
IMF DIARY

DISTANCE LEARNING START DATES

3rd June 2022

You may enrol up to 30 days in advance of the start date.

Please note that all course fees must be paid in full before any course materials can be released.

Please contact Karen Yates by email
karen@materialsfinishing.org

You can find details of courses and qualifications on our website- https://materials-finishing.org/

UPCOMING WEBINARS/SEMINARS

**Brush Plating – a Zoom seminar**
15th February 2022 at 7.00pm

**The Hull Cell – a Webinar**
22nd February 2022 at 2.00pm

**Zinc and Zinc Alloy Plating – a Webinar**
22nd March 2022 time tba

**Electroless Plating – a Webinar**
10th May 2022 time tba

Everyone is invited and if you wish to attend any webinar or seminar please contact John Burgess by email:- JohnB_IMF@btinternet.com

---

**Atotech UK Ltd.**
William Street
West Bromwich, B70 0BG
Tel: 0121 606 77 77
sales.uk@atotech.com

---

**Fischer**

Offering a comprehensive range of precision measuring instruments and solutions

- THICKNESS EVALUATION
- COMPOSITION ANALYSIS
- MECHANICAL PROPERTIES TESTING
- SALES, SERVICE AND TRAINING SUPPORT

For more information please contact:
Fischer Instrumentation GB
12 Goodwood Road, Keytec 7 Business Park, Pershore, WR10 2JL
Tel: +44 (0) 1386 577370
Email: mail@fischergb.co.uk

www.fischerinstrumentation.co.uk

---

**For Salt Spray Corrosion Testing & Chemical Analysis**
by UKAS and Nadcap Accredited Laboratory

Corporate, ASTM and BS / ISO specification

Contact: Mark Ricketts
Unit 20, Marca Business Village
Westwood Business Park
Coventry CV4 8HX
Tel: (024) 7647 4474
support@serotechnolabs.co.uk

---

IMFORMATION FEBRUARY 2022
t hardly seems possible that we are now into February; the year has started at a pace with a pleasing sign of increased activity across most industries. Even though I succeeded in completing “dry January”, because of the increased involvement with work projects it didn’t seem to drag, and best of all my favourite charity has benefited!

As we have now seen a reduction in restrictions due to Covid, I am sure these signs of increased business activity will continue to grow to the benefit of us all. We are seeing an increased ability to meet face to face, which can only help to produce business growth.

Certainly both Helen and Karen are now working some if not all of the week at the new offices at “New Exeter House”, and enjoying the much simpler commute for them both, and the pleasures of the much improved offices!

At present the board is continuing to meet via zoom, but we do plan to try out the new board room at New Exeter House later in the year. A reminder to committees, branches and groups; there are great meeting rooms at New Exeter House if you wish to return to “face to face” meetings, but can I ask that you liaise with Helen reference suitable dates. There is also a plan to offer meeting rooms/facilities to other organisations and possibly businesses local to the office.

A further benefit of New Exeter House is what we have described as our “Education Room”. This separate room has been kitted out with individual desks and chairs to enable up to 30 students to take our exams in a quiet, calm environment, and supervised by one invigilator. This will be so much better than as we were at the old offices with students not being easily separated and the need to use more than one room. This new room can also be used to hold tutored courses as and when required.

During January, I attended a virtual meeting organised by the British Coatings Federation, which majored on a presentation from DEFRA, which detailed a discussion proposal on a UK REACH alternative registration approach.

I will put together a separate report on the DEFRA presentation, but to summarise they plan to reduce the elements of registration that require industry to provide the hazard data packages, and replace these with “an innovative requirement focussing on the assessment of risk within the GB context”. Substance groups would use public data to agree a hazard profile for a substance, which would be given to HSE in the form of a Substance Hazard Information Profile (SHIP).

There is also a proposal to extend the deadlines for registration submissions, and it is thought this extension would be of the order of 2 years.

This will be good news for the suppliers to our industry, especially in view of the time extension for registration submissions, but it is also hoped these submissions will be simpler and consequently at a lower cost. This should result in the lower volume, but key chemicals, being registered, a long-held fear of mine!

As over the past few years, we will continue to hold a watching brief over the UK REACH regulations, and by maintaining our commitment to groups like the “Cross Sector Group” we will be able to report to you, our members, any relevant changes or information.

So can I wish you a successful start to 2022, and remember it won’t be too long before the weather gets better!

Graham Armstrong
HMG Paints, the UK’s leading independent paint manufacturer, has announced a new coating specification service for the Defence industry. The new service will allow engineers and specifiers to identify and select the perfect coating for their requirements.

Def Stan Coatings Made in UK

Following a period of growth and development of cross-sector partnerships and international collaborations, HMG Paints’ new service is aimed to take the hassle out of identifying and sourcing the correct Def Stan or NSN number for OEM and manufacturers projects.

“Since our appearance at the DSEI show we’ve seen a number of enquiries from OEM’s and manufacturers who are struggling to identify the correct product and also find one manufactured in the UK and that is available with a minimal lead time” commented Alan Sharples, Defence Sales Manager for HMG. “The prime example is people unaware of the change from Def Stan 80-206, Def Stan 80-207, Def Stan 80-208 and Def Stan 80-209 to Def Stan 80-225. Our team at HMG are now equipped to advise specifiers and engineers and take orders which can be shipped immediately across the UK.”

80-225 IRR and CARC Topcoat

The Def Stan 80-225 system comprises of a choice of primers for ferrous and non-ferrous parts and an IRR and CARC, Chemical Agent Resistant topcoat, which is available in an assortment of colours suitable for military vehicles and non-aircraft equipment. Following their attendance at DSEI, HMG have seen an increase in demand for its Def Stan 80-225 product range and the product is now stocked and available for immediate despatch across the UK.

The new standard, which was introduced towards the end of 2018 and replaces Def Stan 80
-206, Def Stan 80-207, Def Stan 80-208 and Def Stan 80-209. The HMG products in this range are free from Chrome VI, meet low VOC requirements, and are IRR and CARC resistant. As an agile UK based manufacturer, HMG Paints is able to provide products on demand, reducing extensive lead times previously experienced within the market.

Taking the hassle out of NSN Numbers

The new service is also aimed to help specifiers and engineers when it comes to identifying products via their NSN Numbers. The 13-digit NATO stock number (NSN) which is allocated to an item is used to identify it throughout the supply chain and HMG can now assist with paints and coatings related queries. The NATO codification system is used by the army, navy and air force and all items of supply going through the military supply chain must be NATO codified.

With HMG’s unique position as a UK based coatings manufacturer, they are also able to work with customers to develop new products that can then be codified with their own unique NSN Number. You can find out more about HMG’s range of Def Stan products and bespoke coatings development service at [www.hmgpaint.com/products/landing/Defence](https://www.hmgpaint.com/products/landing/Defence). “2021 saw us working with a number of companies struggling to identify NSN’s and Def Stans and ultimately to acquire paints and coatings which were previously imported from abroad” commented Alan Sharples. “With more and more paint manufacturers offshoring production and decision making we feel HMG can provide a unique offering to OEM’s and refinishers within the defence market with our specification service and with fast delivery of paint. With all of our coatings being Made in Britain it allows us to provide market leading short lead times and technical support.”

Alongside Defence Standard products, HMG produce a wide range of approved high-quality coatings for practically every purpose for the defence industry. Made in the UK, HMG’s product range is suitable for equipment such as containers, trailers, vehicles, bridges and armour. HMG are renowned for their innovative approach to coatings including corrosion resistant primers, functional topcoats plus CARC and IRR materials approved to UK defence standards.

If you’d like to book a meeting or require information on the HMG Paints products or specification service you can email defence@hmgpaint.com and a member of the team will assist you.

To see a full list of HMG Paints products and services visit [www.hmgpaint.com](https://www.hmgpaint.com) via the website you can also find out more about the company’s history and partners.
Spend to save in 2022

Graham Fraser, MD at Fraser Technologies, discusses how 2022 is the right time to invest in equipment and technology.

A brand new year has begun, and there seems to be a feeling of optimism in the air. After two years of uncertainty caused by the onset of COVID-19, we hope we have turned a corner and are learning to live with the virus rather than be controlled by it.

People are returning to offices, travel restrictions are easing, and we find ourselves in a different world. In the last two years, people and industry have changed – there is a renewed focus on sustainability post COP26 and today’s challenges include staff and skills shortages, and much longer lead times.

As we reflect on all we have learned in this period and look to the future, the answer to many problems is more automation, lower maintenance, and an investment in technology. The manufacturing industry has two years of catching up to do, and after a period of little investment, the time is right to consider capital spend. As lead times continue to be extended – and as more businesses recognise the need to buy new equipment and machinery – getting in early is key.

Why now?

A 2022 purchase allows businesses to take advantage of the “super-deduction” policy that was announced in last year’s budget. This temporary policy allows companies to claim 130% capital allowances on plant and machinery investments until March 2023.

The Chancellor also announced a 50% first-year allowance for special rate (including long life) assets that ordinarily qualify for a 6% special rate writing down allowance. Taken together, these policies provide a strong financial incentive for businesses to make additional investments, and to accelerate the rate of planned investments.

New equipment and a reassessment of products and processes can also help business to reduce carbon emissions and meet net zero goals. Cleaning solvents were historically guilty of very high global warming potential (GWP). However, there is a new generation of solvents which have been developed specifically with the environment in mind and are far less harmful than comparable solutions.

We recently worked with an aerospace manufacturer to find an alternative to the high-GWP solvent they were using. We switched their solvent and upgraded their equipment, and assisted in optimising their processes to reduce solvent consumption. This resulted in a 28% reduction in their overall usage of solvent, saving them around £30,000 per year and significantly reducing their carbon emissions.

At Fraser Technologies, we have the expertise to assess your individual business needs and select the best component cleaning machine and speciality fluids for you to make this investment. For over 50 years, we have been delivering chemical solutions to UK manufacturing across a range of industries. As an independent supplier of equipment and chemicals we are able to work with you to provide the solvent or aqueous cleaning systems that best suit your business.

For more information please contact us:
Tel: 01506 443058 | E-mail: sales@frasertech.co.uk | www.frasertech.co.uk
A brief look at Surface Finishing & its Technologies

The surface finishing of metals encompasses a range of processes which can be defined as the deposition of a coating which will provide either a protective and/or decorative finish to a substrate. This substrate can be metallic or non-metallic in nature.

Below gives an idea of some of the many technologies employed and many of these can be found in everyday life.

Anodising, Conversion Coatings, Electroless plating, Electroplating, Galvanising, Painting, lacquering and Varnishing and Powder Coating, are to name but a few.

**Anodising:** This is an electrolytic process designed to produce an oxide film integral with the surface of the metal. Its main application is in the treatment of aluminium but other metals such as zinc, magnesium & titanium have been used.

The major use is in the decorative treatments of products such as domestic hardware, door furniture, shop frontage and many more.

The coating is usually around 7–15m thick but in architectural applications or where there is a high degree of corrosion resistance required it can be 25m thick.

In the aerospace industry it can be used as an undercoat to painting.

**Conversion Coatings:** A Conversion coating is a chemical treatment of the original metal or of an applied metal (electroplated) to produce a superficial layer of the compound of the metal surface.

Terminology such as passivating, chromating and phosphating are given to these processes.

Major applications of these processes are:

As a pre-treatment operation prior to paint coatings to benefit adhesion
To prevent atmospheric corrosion
To act as a lubricant carrier to provide resistance to wear.

**Electroless Plating:** The prime metals deposited in this process are copper & nickel where copper is used mainly in the printed circuit board industry and electroless nickel in the engineering industry.

Electroless nickel in the engineering industry is applied to give a hard and corrosion resistant coating allowing the use of a less valued metal.

Electroless copper can also be used as an initial coating to non-metallic coatings in order to give a conductive coating which can then be electroplated. Example of this is in plating on plastics.

**Electroplating:** This is the deposition of a metal by electrolysis from a solution containing that metal. An example can be copper plating from a copper plating solution.

Reasons for using this type of process:
Surface Finishing (ii)

Visual/Decorative: To make the product more saleable

Functional/Engineering: To produce a corrosion resistant or wear and abrasion resistant coating

Repair/Salvage: Repair to damaged components or those that have had a dimensional change in service

Manufacturing: Production of specialised electroplating techniques such as Electroforming.

Economics: The use of a cheaper base material substrate such as steel and zinc based diecasting which when coated provide products have the desired visual, decorative or functional properties.

Galvanising: One of the most widely used methods of coating iron and steel with zinc particularly for corrosion resistance.

The zinc on steel works by using the zinc as a ‘sacrificial’ coating. The zinc acts as an anode when the steel/zinc is in contact with a solvent such as water and develops to form tenacious carbonate film which resists further attack.

Painting, Lacquering & Varnishing (PLV): This is the coating of a substrate with an organic material. Traditionally such coatings were produced using organic resins and pigments in a blend of organic solvents. The coatings are applied by various techniques, including brushing, dipping, roller coating and spraying.

Recent developments include the use of water-based coatings, solvent-free coatings (powder coating) and coatings which can be deposited using electroplating technology.

Powder Coating: Coating powders are mixtures of resins and pigments blended together and supplied in fine powder form. The materials used are usually thermoplastics or thermostet powders, for example polythene, nylon, PVC, mixed epoxy polymers, polyesters, acrylics and polyurethanes. The powders are generally applied to components by the use of electrostatic spray guns, although some use is made of fluidised bed principles. The component is at earth potential and the powder emitted from the gun is electrically charged at the point of emission and is attracted to the component. Upon heating the powder melts to form a continuous coating. Whilst some powder may be lost at application, often this can be collected for re-use and thus there is a high material utilisation system. The process is essentially solvent free thus avoids the problems of volatile organic solvents that occur with traditional paints.

Obviously this is only an outline of Surface Finishing and the whole subject is much greater than this but if you want to learn more about some of the subjects outlined above then please look out for the Webinars that the IMF provide on a monthly basis.
So, what is the M & M’s you might ask? Well I asked myself the same question when I was asked to join the committee of this particular sub section of the IMF.

M & M stands for Membership and Marketing and it’s purpose is to look into how the IMF can market itself and to find ways to improve the membership and put forward new ideas to encourage new membership.

After being in the M & M’s for about 1 year I was asked if I would like to be Chairman, a position I decided to give a go and have thoroughly enjoyed.

The committee consists of myself and 4 others together with Helen who kindly takes all the minutes and Karen who supplies all the information on membership & education.

We used to meet up at Old Exeter House but since Covid the meetings have been by Zoom so in effect we have not had to miss too many meetings.

Our meetings take place approximately every 3 – 4 weeks and are usually quite lively and I think enjoyable. (I must admit I haven’t heard anything to the contrary or they are too courteous to tell me).

If anyone would be interested in joining the committee and feel they can bring some new bright ideas to the IMF then please contact Helen Wood (helen@materailsfinishing.org) who will pass on your interest. We do not bite and would certainly make you very welcome.

John Burgess FIMF
M&M Chairman
Southern Branch Seminar by Zoom

“Brush Plating”

Date: 15th February

Time: 19-15

Speaker: Mr Mark Dorgan (Sifco)

The Southern Branch of the IMF are inviting you to an evening seminar (by zoom) on the topic of “Brush Plating”.

This evening should be very interesting as we delve into yet another method of electroplating.

If you would like to attend this interesting evening please contact:

Helen Wood: helen@materialsfinishing.org who will send you out the zoom information.

Looking forward to seeing you at the seminar.
SURFACE WORLD 2022

REVISED DATES: 2nd & 3rd MARCH 2022

SURFACE WORLD LIVE
Sponsored by The Institute of Materials Finishing
Proud supporters of the British surface finishing industry

- See the latest technology and new products
- Discuss business with new and existing suppliers
- Take advantage of the exclusive show offers
- Watch live demonstrations
- Get advice from experts in the industry
- Your industry under one roof over two days
- The only exhibition in the UK dedicated to the surface finishing industry

FREE ENTRY

SURFACE WORLD LIVE
NEC, BIRMINGHAM
2nd & 3rd MARCH 2022

Why not beat the queues and register online.
Visit www.surfaceworld.com, just click on the registration banner and enter your details.
OTHER EXHIBITIONS

THE Advanced Materials SHOW

29th & 30th June 2022  NEC, Birmingham, UK

Co-located with

CERAMICS

MACH

4-8 April 2022
NEC Birmingham UK
machexhibition.com

SURFEX

EXHIBITION INDUSTRY INSIGHT
SURFACING SCIENCE TECHFOCUS
THE CUTTING EDGE

7-8 June 2022
Ricoh Arena, Coventry, UK

14th INTERNATIONAL WORKSHOP ON ELECTRODEPOSITED NANOSTRUCTURES
June 9-11, 2022 – Kraków, Poland

IMFORMATION FEBRUARY 2022